

MFC OS2

Mobile fiber cable

based upon **SMPTE2110**

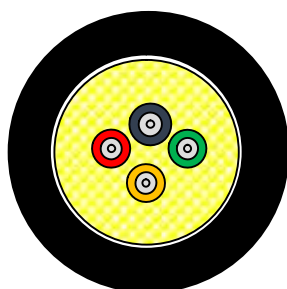
Application

Cable for mobile use with tight buffered fibers

Fiber type 9/125: BBXS, Tight buffer (TB9)

Fiber data sheet: C25

IEC60332-1



Construction

Fiber Type	9/125 µm Single mode, BendBright XS (BBXS) Tight buffer, TB9
Fiber core diameter	9 µm
Cladding diameter	125 ± 0.4 µm
Primary Coating diameter	242 ± 5 µm
Secondary buffer diameter	900 µm,
Identification	Colored fibers: 1 x red, 1 x blue, 1 x yellow, 1 x green
Cable lay up	(0+4) 4 fibers twisted to a bundle
Strength member	Aramid yarn
Sheath	PUR HFFR, black matt, RAL 9005, diameter 6.0mm
Printing	DRAKA Mobile Fiber cable MFC 4 x OS2 OUTDOOR batch number + meter marking

Mechanical properties

Minimum bending radius	10 x D
Temperature range	-20°C to + 70°C
TCT deviation	± 0.7dB max

Technical data

Product code	Type	Brand name	Outer diameter mm	Weight Kg/km	Fibre type	Tensile force N
	2 x 9/125 PUR	MFC E2	5.0		BBXS C25	400
60082205	4 x 9/125 PUR	MFC E4	6.0	29	BBXS C25	400
60082204	8 x 9/125 PUR	MFC E8	6.5	35	BBXS C25	700
60082203	12 x 9/125 PUR	MFC E12	6.5	42	BBXS C25	1000

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Fibre data sheet C25: BendBright-XS® Fibre for Patch Cords

Enhanced bend insensitive, low water peak fibre; G.657.A and B

BendBright^{XS} Path cord fibre combines three attractive features: excellent low macro-bending sensitivity, Draka's revolutionary new ColorLock^{XS} coating and tight glass geometry. Together they create the ideal fibre for all patch cord, interconnect & jumper applications.

Standards and Norms

IEC 60793-2-50 Category B6_a and B6_b	EN 50 173-1:2007, cat. OS2
EN 60793-2-50: Class B6_a and B6_b	ISO/IEC 11801:2002, cat. OS1
ITU Recommendation G.657.A and G.657.B	ISO/IEC 24702:2006 cat. OS2, also OS1 requirements are fulfilled
ITU Recommendation G.652.D – the older ITU designations A, B and C are also fulfilled.	IEEE 802.3 – 2002 incl. 802.3ae

Attenuation (of cable with fibres)

IEC 60793-1-40

1310 nm – 1625 nm	≤ 0.39 dB/km
1550 nm	≤ 0.25 dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	Max. 0.1 dB/km

Group index of refraction

IEC 60793-1-22

Group index of refraction at 1310 nm	1.467
Group index of refraction at 1550 nm	1.467
Group index of refraction at 1625 nm	1.468

Other properties

IEC 60793-1-xx

Cladding diameter	IEC/EN 60793-1-20	µm	125.0 ± 0.4
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 0.3
Core (MDF) -cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 0.3
Primary coating diameter	IEC/EN 60793-1-21	µm	242 ± 5
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 12.0
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Strip force (peak)	IEC/EN 60793-1-32	N	1.0 ≤ F _{peak,strip} ≤ 8.9
Static fatigue, aged n _s		-	>23
Chromatic dispersion coefficient: In the interval 1285 nm – 1330 nm At 1550 nm	IEC/EN 60793-1-42	ps/km • nm ps/km • nm	≤ 3 ≤ 18.0
Zero dispersion wavelength, λ ₀		nm	1300 - 1324
Zero dispersion slope		ps/(nm ² • km)	≤ 0.092
Cut-off wavelength, cable	IEC/EN 60793-1-44	λ _{cc} nm	≤ 1260
Cut-off wavelength, fibre	IEC/EN 60793-1-44	λ _{cf} nm	≤ 1280
Mode field diameter at 1310 nm	IEC/EN 60793-1-45	µm	8.2 – 9.0
Mode field diameter at 1550 nm		µm	9.1 - 10.1
Macro bending loss at 1550 nm, 10 turns on a R = 15 mm mandrel 1 turn on a R = 10 mm mandrel 1 turn on a R = 7.5 mm mandrel	IEC/EN 60793-1-47	dB	≤ 0.03 ≤ 0.1 ≤ 0.5
Polarisation mode dispersion (PMD) coefficient, cabled	IEC/EN 60793-1-48	ps/√km	≤ 0.15
PMD ₀ Link Design Value	IEC/EN 60794-3	ps/√km	≤ 0.08

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